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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,672

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Kenneth McPherson Hopkins

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EXAMINER

PEREZ, CARLOS R

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,672	Applicant(s) HOPKINS ET AL.	
	Examiner CARLOS R. PEREZ TORO	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/8/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Application No. 10/530,672 filed on 4/8/2005, claims 1-22 have been examined.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: connection apparatus **10** (page 8, line 20). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin (US 4,459,436) in view of Bella (US 6,181,775).

Regarding claim 1, Rubin teaches a connection apparatus for a network tester or analyser, the connection apparatus comprising:

at least two network connection devices for connecting the apparatus to a network, each connection device being constructed and arranged to output serial electrical signals corresponding to signals received from a network to which the connection apparatus is in use connected (serial-out processing circuits) (Rubin col 14/ln 5-12; Fig 3); and,

at least two solid state switches, each solid state switch being constructed and arranged to receive serial electrical signals output by a respective one of the network connection devices and to output a corresponding serial electrical signal (7-1 MUX) (Rubin col 48/ln 20-45, Fig 23);

However, Rubin does not explicitly teach each switch being controllable such that signals can be selectively output and received at another switch for return to said network.

However, in the same field of invention, Bella teaches each solid state switch being controllable such that electrical signals corresponding to signals received from a said network can selectively be output by the solid state switch and received at the other or another of the solid state switches for return to a said network by said other or another of the solid state switches (Bella, col 3/ln 38-56, Fig 4).

At the time the invention was made, given the teachings for two network devices and solid state switches to output serial electrical signals corresponding to signals received, the teachings of Bella for the switches being controllable to selectively output for return to said network would have been obvious. One of ordinary skill in the art would be motivated to combine these teachings in order provide for a single apparatus that can be used to test both a line and an equipment through remote control input.

5. Regarding claim 2, Rubin-Bella teaches a respective serial-to-parallel data converter for each solid state switch, each serial-to-parallel data converter being constructed and arranged to receive a serial electrical signal corresponding to signals received from a said network that is output by the respective solid state switch and to convert the received serial electrical signal into parallel form (Rubin col 14/ln 5-12; Fig 3).

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6. Regarding claim 3, Rubin-Bella teaches each solid state switch is constructed and arranged to retime electrical signals received from the other or another of the solid state switches prior to returning said electrical signals to a said network (Rubin col 76/ln 3-13).

7. Regarding claim 4, Rubin-Bella teaches at least one of the solid state switches is a port bypass circuit (Bella col 14/ln 4-7).

8. Regarding claim 5, Rubin-Bella teaches each solid state switch is a port bypass circuit (Bella col 14/ln 4-7).

9. Claims 7-9 are substantially the same as claims 1-3 and are thus rejected for reasons similar to those in rejecting claims 1-3.

10. Regarding claims 10 and 11, Rubin-Bella teaches a network tester can selectively be operated in in-line (Fig 3) or end station (Fig 4) mode when connected to a network (Bella Fig 3 and Fig 4).

11. Claims 12-16 are substantially the same as claims 1-5 and 10 and are thus rejected for reasons similar to those in rejecting claims 1-5 and 10.

12. Claims 18-22 are substantially the same as claims 1-5 and 10 and are thus rejected for reasons similar to those in rejecting claims 1-5 and 10.

13. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin-Bella and in view of Acton et al. (5,544,319) (hereinafter Acton).

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14. Regarding claims 6 and 17, Rubin-Bella does not explicitly teach receiving optical signals and converting them into serial electrical signals.

However, in the same field of invention, Acton teaches each network connection device is constructed and arranged to receive optical signals from an optical network and to convert the received optical signals into serial electrical form for output to the respective solid state switch (Acton col 20/ln 21-22).

At the time the invention was made, given the teachings for two network devices and solid state switches to output serial electrical signals corresponding to signals received, the switches controllable to selectively output for return to said network, the teachings of Acton for using optical signals would have been obvious. One of ordinary skill in the art would be motivated to apply these teachings to optical signals in order to improve testing in fiber optic networks.

Comments

15. Examiner, in the body of this action, has pointed out particular references contained in the prior arts of record for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested of the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARLOS R. PEREZ TORO whose telephone number is (571) 270-5649. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. R. P./

Examiner, Art Unit 2444

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444